UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,074	12/06/2001	Dwip N. Banerjee	AUS920010869US1	8811

7590 06/23/2004

Mr. Volel Emile
P.O. Box 202170
Austin, TX 78720-2170

EXAMINER	
CHU, GABRIEL L	
ART UNIT	**PAPER NUMBER**
2114	

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/006,074	BANERJEE ET AL.	
	Examiner	Art Unit	
	Gabriel L. Chu	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Co-pending applications referenced in the specification have since been assigned serial numbers. IBM Docket No. AUS920010868US1 has been assigned serial number 10/006060. IBM Docket No. AUS920010870US1 has been assigned serial number 10/006079. IBM Docket No. AUS920010871US1 has been assigned serial number 10/006059.

Claim Objections

2. Claims 2-4, 7, 14, 17, and 21 objected to because of the following informalities: "including" is understood to refer to "includes". Appropriate correction is required.

3. Claims 2, 9, 16, and 23 are objected to because of the following informalities: "using XML-based" is understood to refer to "using an XML-based". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5347524 to l'Anson et al. in view of "Extensible Markup Language (XML) 1.0" by W3C. Referring to claims 1 8, 15, and 22, l'Anson et al. disclose capturing data packets exchanged over a network communications line (From the abstract, "A protocol analyzer

is provided for monitoring a selected communication connection being conducted in accordance with a predetermined protocol by the exchange of protocol data units between two entities over a data network. The analyzer includes a monitoring device for identifying protocol data units, a protocol-follower conditioned in dependence on said predetermined protocol and operative to follow the progress of the connection as it receives relevant protocol data units from the monitoring device, and an alarm indicating when the sequence of protocol data units diverges from the protocol. The protocol data units are passed through a FIFO store as they are used by the protocol-follower, so that on a protocol violation occurring, the sequence of protocol data units leading up to the violation can be extracted from the FIFO store and displayed."); generating a document using the captured data packets (From the abstract, "The protocol data units are passed through a FIFO store as they are used by the protocol-follower, so that on a protocol violation occurring, the sequence of protocol data units leading up to the violation can be extracted from the FIFO store and displayed. The protocol analyzer thus filters out protocol data units conforming to the relevant protocol so that only protocol data units violating the protocol, together with the immediately preceding protocol data units, are displayed."); and diagnosing the network protocol errors using the document (From line 23 of column 7, "Sequences violating the protocol are thus displayed to the user on the display unit 20, and stored in the log memory 21 for later analysis. The user can see not just the protocol-violating PDU type but the whole sequence leading up to it, because on a protocol violation, that whole sequence is stored in FIFO 16. The gate 19 is kept enabled while the whole sequence passes through it."). Although I'Anson et al.

do not specifically disclose the document is in XML format, using XML to present data is well known in the art. This is shown by W3C from page 1, "Extensible Markup Language, abbreviated XML, describes a class of data objects called XML documents and partially describes the behavior of computer programs which process them. XML is an application profile or restricted form of SGML, the Standard Generalized Markup Language [ISO 8879]. By construction, XML documents are conforming SGML documents. XML documents are made up of storage units called entities, which contain either parsed or unparsed data. Parsed data is made up of characters, some of which form character data, and some of which form markup. Markup encodes a description of the document's storage layout and logical structure. XML provides a mechanism to impose constraints on the storage layout and logical structure." A person of ordinary skill in the art at the time of the invention would have been motivated to use XML in a network analysis tool because, from W3C, "XML provides a mechanism to impose constraints on the storage layout and logical structure", and further from line 21 of column 8 of l'Anson et al., "The gate 19 can of course be arranged to allow all packet types emerging from the FIFO 16 and to merely add a distinguishing tag to protocol-violating packet types, with the display unit 20 displaying tagged packet types in a distinctive manner."

Further referring to claim 22, l'Anson et al. in view of W3C disclose at least one memory device for storing code data; and at least one processor for processing the code data (See figure 4.).

Referring to claims 2, 9, 16, and 23, l'Anson et al. in view of W3C disclose the

step of diagnosing includes the step of using an XML-based analysis mechanism (From page 1 of W3C, "A software module called an XML processor is used to read XML documents and provide access to their content and structure.").

Referring to claims 3, 10, 17, and 24, I'Anson et al. in view of W3C disclose the step of diagnosing includes the step of using semantic analysis (From line 21 of column 8 of I'Anson et al., "The gate 19 can of course be arranged to allow all packet types emerging from the FIFO 16 and to merely add a distinguishing tag to protocol-violating packet types, with the display unit 20 displaying tagged packet types in a distinctive manner." Wherein tagging relates to meaning.).

Referring to claims 4, 11, 18, and 25, I'Anson et al. in view of W3C disclose the step of diagnosing includes the step of passing the XML document through a parser (From line 21 of column 8 of I'Anson et al., "The gate 19 can of course be arranged to allow all packet types emerging from the FIFO 16 and to merely add a distinguishing tag to protocol-violating packet types, with the display unit 20 displaying tagged packet types in a distinctive manner." Wherein, at least, tagging separates the packet types emerging from the FIFO.).

Referring to claims 5, 12, 19, and 26, I'Anson et al. in view of W3C disclose the data packets are captured through a tcpdump (From line 56 of column 2, "Monitoring means monitors the network to derive protocol-unit signals indicative of protocol data units relevant to the selected connection." Further, from line 7 of column 5, "A protocol entity can be arranged to simultaneously handle multiple connections for data transfer among different end-system processes. In this case, it is necessary for each

connection to be uniquely identified so that the entity knows which PDU relates to which connection. Protocol entities running the well known transmission control protocol (TCP) use pairings of endpoint to identify a connection where an endpoint is the combination of a IP address parameter identifying the end system concerned (or, more accurately, an interface of the end system to the network), and a port number parameter indicating the source/destination within the end system with which the TCP entity is to communicate.").

Referring to claims 6, 13, 20, and 27, l'Anson et al. in view of W3C disclose the data packets are captured through a sniffer (From line 56 of column 2, "Monitoring means monitors the network to derive protocol-unit signals indicative of protocol data units relevant to the selected connection.").

Referring to claims 7, 14, 21, and 28, l'Anson et al. in view of W3C disclose the step of diagnosing includes the step of visually inspecting the XML document (From line 23 of column 7, "Sequences violating the protocol are thus displayed to the user on the display unit 20, and stored in the log memory 21 for later analysis. The user can see not just the protocol-violating PDU type but the whole sequence leading up to it, because on a protocol violation, that whole sequence is stored in FIFO 16. The gate 19 is kept enabled while the whole sequence passes through it.").

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5850388 to Anderson et al.

US 5933602 to Grover

US 6115393 to Engel et al.

US 6587439 to Arcieri et al.

US 6708292 to Mangasarian

US 6728219 to Leong et al.

US 6745351 to Mastro

JP 2001274806A to Tatsuma

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel L. Chu whose telephone number is (703) 308-7298. The examiner can normally be reached on weekdays between 8:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W. Beausoliel, Jr. can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gc

SCOTT BADERMAN
PRIMARY EXAMINER